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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,689

01/29/2004

Craig L. Hill

50508-1061

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06/20/2006

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP  
100 GALLERIA PARKWAY, NW  
STE 1750  
ATLANTA, GA 30339-5948

EXAMINER

PAK, JOHN D

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/767,689

**Applicant(s)**

HILL ET AL.

**Examiner**

JOHN PAK

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 57-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 57-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/2004
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 20060612
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1616

This Office action is in reply to applicant's response of 3/27/2006.

Claims 57-62 are currently pending in this application.

Applicant's election without traverse of the invention of Group I in the response filed on 3/27/2006 is acknowledged. Accordingly, claims 57-62 will presently be examined to the extent that they read on the formula of claim 58, wherein X is phosphorus. All other claimed subject matter is withdrawn from further consideration as being directed to non-elected subject matter.

It is noted for the record that the Examiner and applicant's attorney, Mr. Linder, discussed on June 4, 2006 and June 9, 2006 the restriction requirement of record and potential amendments to overcome EP 442663. See the Interview Summary Record, attached hereto. Upon further review and reconsideration, the Examiner has determined that the following grounds of rejection should be made of record in order to fully address the issues encompassed therein.

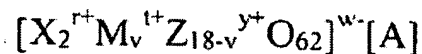
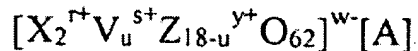
Applicant is advised of a typographical error in claim 60" "modified" is a misspelling of "modified."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 58-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant recites two related formulas in claims 58-59:



The problem with these formulas is that the subscripts and superscripts are not all defined – the claimed subject matter is therefore indefinite. In a non-limiting example, the value of “u” and “y” in the first formula is not defined.

Also, the formula in claim 59 is not properly dependent on claim 58 since claim 58 requires a vanadium, whereas the formula in claim 59 does not have to have a vanadium. This is confusing because the above interpretation of claim 59 could be altered if the subscript v in the formula of claim 59 is meant to be for vanadium only.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 57-61 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 442663.

EP 442663 explicitly discloses  $K_8HP_2W_{15}V_3O_{62}$  as an anti-viral and anti-HIV agent (page 1 & Example 17 on page 14). Broader formula of  $P_2W_{18-a}M^m{}_aO_{62-b}$  is

disclosed (claim 1, part e), as well as  $[P_2W_{15}V_3O_{62}]^{-9}$  (claim 7). Coating on gloves, wound dressings and coverings is disclosed (page 16, lines 47-52).

It is recognized that the cited reference does not expressly disclose in verbatim language, "polyoxometalate-modified fabric." However, applicant's fabric species include a variety of natural as well as synthetic fabrics (see claim 62). Therefore, it is the Examiner's position that the gloves (within the scope of "garment"), wound dressings and coverings disclosed by EP 442663 would necessarily have been made of natural or synthetic fabrics, which would meet the claim feature. Having  $K_8HP_2W_{15}V_3O_{62}$  coated on gloves, wound dressings and coverings means that the natural or synthetic fabric that makes up the gloves, wound dressings and coverings are "polyoxometalate-modified," i.e. the polyoxometalate is incorporated into said fabric.

For these reasons the claims are deemed to be anticipated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 442663 in view of Lovatto et al. (US 4,615,062) and Williams et al. (US 5,676,967).

EP 442663 explicitly discloses  $K_8HP_2W_{15}V_3O_{62}$  as an anti-viral and anti-HIV agent (page 1 & Example 17 on page 14). Broader formula of  $P_2W_{18-a}M'''_aO_{62-b}$  is disclosed (claim 1, part e), as well as  $[P_2W_{15}V_3O_{62}]^{-9}$  (claim 7). Coating on gloves, wound dressings and coverings is disclosed (page 16, lines 47-52).

EP 442663 does not explicitly disclose any specific fabric types for its gloves, wound dressing and coverings, whereas applicant's claim 62 recites specific fabric types such as polyamide or polyester fibers. However, it is well known that articles such as wound dressing are made with such fibers. For example, the patent by Lovatto et al. is cited to establish that the level of ordinary skill in this art would have been such that use of polyamide fibers and polyesters as wound dressing fabric material would have been obvious. See in Lovatto et al. column 1, lines 8-11 and claims 1-3. The patent by Williams et al. similarly establishes that the level of ordinary skill in this art would have been such that use of polyesters as wound dressing fabric material would have been obvious.

The ordinary skilled artisan would have been motivated to incorporate the specifically disclosed polyoxometalate by EP 442663,  $K_8HP_2W_{15}V_3O_{62}$ , into such fabric, because EP 442663 teaches the advantage of obtaining antiviral protection therefrom.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because

every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

WO 95/11033 is cited to further show the state of the art POM art.

Applicant will note many references that are crossed out on the PTO-1449 forms.

In the IDS of 1/29/2004, applicant states:

This is a Divisional of Application No.: 09/673,187. All patents, publications and articles listed on the attached Form PTO-1449 are available in the Parent Application file.

However, the crossed-out references are not listed on the front page of the patent that issued from the parent application, US Patent No. 6,713,076. Therefore, it does not appear that those references were considered in the parent application file. In the absence of another explanation or full copies of the references, the references cannot be considered at this time.

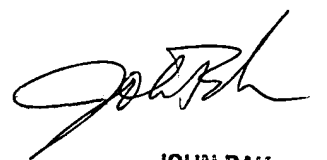
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOHN PAK  
PRIMARY EXAMINER  
GROUP 1600